

A Work Project, presented as part of the requirements for the Award of a Masters Degree in  
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FUTURE FINANCIAL INSTITUTION FOR YOUNG POPULATION – VALUE  
PROPOSITION CONCEPT WITH SPECIAL FOCUS ON TRANSACTIONAL BANKING  
PRODUCTS

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## **Future Financial Institution for Young Population – Value Proposition Concept with Special Focus on Transactional Banking Products**

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### **Abstract**

The present Work Project is centered on a CEMS MIM Business Project developed with MasterCard in Warsaw, Poland. The main outcomes of the project were a thorough knowledge of the FinTech industry and its future trends, a deep understanding of the preferences and expectations of university students and young workers regarding financial services and the suggestion of a value proposition for an innovative financial mobile application. The present report presents the methodology used to achieve the aforementioned outcomes, as well as a complete academic discussion focused on the theories concerning new product development.

*Keywords:* *Financial Services, FinTech, New Product Development, Mobile Application*

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## **I. Brief Context**

### **a. MasterCard and MasterCard Advisors**

MasterCard Incorporated (MC) is a technology company in the global payments business, headquartered in Purchase, New York, USA. MasterCard was created in 1966 by a group of four California banks, originally under the name Interbank Card Association (ICA). Later, its name was changed to Master Charge and, in 1979, to its current name MasterCard. MC is listed in the New York Stock Exchange since 2006 and it enjoyed a net income of almost 4 billion USD in 2015, according to their 2015 Annual Report (MasterCard, 2016a), being present in more than 210 countries and territories.

According to MC's CEO, Ajay Banga, cash is the responsible for the fact that "half of the world's population does not have access to what we take as granted: a bank account, an identity, a way of saving and making payments" (MasterCard, 2016b). And this is where MasterCard wants to make a priceless difference, following its vision to create a World Beyond Cash, where consumers, financial institutions, merchants, governments and businesses can be connected through a safe, simple and smart payment system. In order to achieve this goal, MasterCard combines technology, innovation and safety to offer a wide range of products and solutions to its clients. The most basic products provided by MasterCard are debit, credit and prepaid cards, under the brands MasterCard, Maestro and Cirrus. Among the more innovative products and solutions, one can highlight the MasterPass (a digital wallet where people can have access to all their payment cards and shop online in an extremely convenient way) and the MasterCard Contactless (formerly known as PayPass; it allows users to safely make payments with their phone or credit/debit card, with no need to write a PIN code). In 2001, MasterCard created MasterCard Advisors (MCA), the professional services arm of the company, which provides transactional data and intelligence, as well as data-driven consulting and marketing services solutions, having financial institutions, merchants and advertisers as clients.

## **b. Market Overview and Current Client Situation**

As seen before, MasterCard presents itself as a technology company, which is in line with their ambition to use innovative solutions to change the way people pay around the world. However, in order to evaluate MasterCard in a global market perspective and given that its business model is considerably dependent on fees that arise from credit and debit card usage, it makes sense to include it in the group of global card networks. According to The Nilson Report (2016), MasterCard was the second company with the highest share of purchase card transactions globally (with a 26% market share), falling behind its biggest competitor, Visa (56% of the transactions), but considerably above the other global card brands – such as Discover and American Express.

In Poland, MasterCard has a strong presence in the card payments market, which is almost entirely dominated by the two biggest companies (MC and Visa have 99% of the market share). We did not have access to the percentage of the market that MasterCard has, however we were told by the MCA team that the difference between the two biggest players is not as big as it is globally. This means that the Business Project was done in a market where MasterCard has one big competitor to take into account, being extremely important for them to understand their current and potential customers better than their competitor in order to innovate and offer new solutions, thus leveraging their market share.

Another important aspect to be taken into account is the recent entrance and growth of some new players in the financial industry. These new companies (mostly startups) can already be considered a new industry (FinTech, which stands for Financial Technology) and they are using technological innovations (mostly software) to provide financial products and services. The Fintech industry has been assisting an exponential growth (according to CB Insights, FinTech startups received a funding of 11.2 billion USD in the first three quarters of 2015, a value which is almost twice as big as the total funding in the industry in 2014), which means

that these new companies are a real danger for established financial institutions, such as banks and card providers. For a company such as MasterCard, although there are some features that can be replaced by FinTech startups, there are also a lot of big opportunities that have to be considered, such as the possibility to cooperate with some of these companies in order to achieve more innovative solutions. What this new industry also shows us is that customers (especially the young population) are ready to shift from the traditional ways of payment to the more technological mobile solutions. More and more people now trust these startups, showing how much they value convenience, speed and customization, as long as it is affordable and secure. It seems like the world is one step closer to being cashless and the financial companies, such as MasterCard, have to be careful and pay attention to their market, so that they do not get lost along the way.

### **c. The Business Project Challenge**

The Business Project was done by a group of three CEMS students, including myself and two Polish colleagues. During the whole semester we were accompanied by a small team composed by members of the MasterCard Advisors department in Warsaw. Although the BP was elaborated under the supervision of MasterCard Advisors, its main objective was to bring value to MasterCard Poland as a whole and not specifically to the MCA team.

The scope of the Business Project comes in line with the referred accelerating growth of the FinTech industry, as well as with the fact that in Poland young people seem to be extremely receptive to innovation in financial services, i.e. the market is changing. The project that was presented to the team had three main objectives. The first one was to provide a clear picture of the trends that are shaping the financial services industry, both worldwide and in Poland, with a special focus on the FinTech industry. The second goal was referred to analyzing and understanding the expectations and preferences of young Poles when it comes to financial services, with special emphasis to transaction and payment activities. Finally, the third objective

was the design of a fully-fledged value proposition concept for young people, which would have to be elaborated in line with the MCA methodology (see *Appendix 1*) and in accordance with the insights obtained when fulfilling the previous objectives.

By working with the CEMS students, MasterCard hoped to get important insights about how millennials are reacting to innovation in the financial services industry, as well as to have access to original and creative ideas for potential new services and solutions. On a similar basis, the CEMS team hoped to provide MC with a value proposition concept which would be based on a thorough understanding of the FinTech trends, as well as on the expectations of the young generation. The fact that the BP was supervised by a team of MasterCard Advisors would end up being important due to the fact that they are experienced consultants, meaning that they were able to provide insightful and useful advices throughout the semester.

## **II. Reflection on the Work Done and Individual Contribution**

### **a. Problem Definition**

The main and ultimate goal to be achieved during the Business Project was the elaboration and presentation of a value proposition. This means that our final deliverable would have to include a suggestion of a product or service that would help a company like MasterCard to attract young consumers. This does not necessarily mean that MasterCard was expecting to create a new product or service out of the project (in fact, during the kick-off meeting we were informed that that was not their main objective). They were looking to better understand the trends that are driving the future of the financial services industry, how the millennials are reacting to them and how these insights can be combined into the creation of value. Then, if the product/service presented by the students would be aligned with the MC strategy, its implementation could become a possibility. But during the whole duration of the project we were encouraged to create a value proposition primarily aligned with the results of our research and our preferences and instincts, and not with the MC product strategy.

In order to create and elaborate a financial product or service with the desired characteristics, it was crucial to know exactly the context in which it would be brought to life. This would be a product/service that would be launched in a post-crisis economic situation, where developed countries like Poland are growing and young people's purchasing power is increasing. At the same time, as referred before, new more innovative financial solutions are being launched and threat to shake the pillars of the traditional financial institutions and companies. Previous experience suggests that millennials are extremely open to innovation, which makes this shift in the financial services industry a more plausible scenario. One last thing to take in mind is that, if the product were to be launched or supported by MasterCard, it would be an extremely big advantage due to the positive brand image it possesses, as well as a solid customer base.

In order to solve the challenge that was presented to us, three hypotheses were implicitly defined by the team. These hypotheses had to be tested throughout the semester, in order to assess their validity. Next, the three will be presented and explained, as well as the methodology used to study them and the analysis and results achieved.

#### **b. First Hypothesis: Target Group**

The first hypothesis that was defined by the CEMS team, together with the MasterCard Advisors, was that *the target customer group for the final product/service should be university students and young workers*. This was a necessary step to define in order to being able to create the value proposition. By knowing exactly who would be our target group, we could then proceed to studying and interviewing some representative members of that group, in order to have a better picture of how the product could meet their needs and expectations. Although the initial Business Project challenge presented by MasterCard already specified that the project would be done only having millennials in mind, we thought that it was necessary to narrow it even more, especially to make the initial research possible.



## Methodology

In order to assess if the target group should be the one defined in the aforementioned hypothesis (university students and young workers), some desk research was made, as well as some informal conversations with other CEMS colleagues.

## Analysis & Results

After conducting some research, we concluded that the initial target group was correctly defined and that this should be the group of millennials that the product/service should focus on. High school students (also millennials) should be excluded because they are still too young and immature to make financial decisions on their own. On the other hand, university students already have some autonomy when this is concerned and a lot of them have already had part-time jobs, which means they are getting more conscious about their money and how to deal with it. The same can be applied to young workers in a clearer way. In conclusion, the defined target group is composed by the millennials which are young enough to know the advantages of innovation and technology but old, educated and experienced enough to feel responsible for their own money and financial decisions.

### **c. Second Hypothesis: Success Factors**

The second hypothesis that was defined would end up being an extremely important one for the definition of the final product to develop. Based on our personal experience and some professional insights provided during the discussion with the MasterCard Advisors, we formulated the following hypothesis: *the main success factors for an innovative financial service are mobile availability, speed of transactions and competitive pricing*. If these success factors were proven valid, this would be an important first step for the definition of the value proposition.

## Methodology

In order to assess the validity of the aforementioned hypothesis, two different approaches were taken to complement each other: primary research and secondary research. The first research to be done was secondary research and it was specially focused on the FinTech industry, both worldwide and in the Polish context. The main intended outcomes of the primary research on the FinTech industry were the definition of the main trends for the evolution and growth of the industry and the presentation and analysis of some relevant best practices in the industry, in order to understand what is successful and drives consumers' interest. The research was done through the analysis of innumerable articles about the growth of the FinTech industries and the development of FinTech startups. The second step of this methodology was primary research, which was extremely important because we had the opportunity to collect information directly from the potential consumers of our future product, although it was more time consuming than the secondary research. The primary research was made through focus groups and interviews. Three focus group discussions were held. The three groups were composed by six people each, which were university students or young workers (target group defined in the previous hypothesis). The members of the focus groups came from different countries (six different nationalities overall) and almost all of them had had some international experience. The discussions were held during about one hour each in a comfortable environment, with an effort to include every one of the participants in the conversation. Apart from these focus group discussions, five individual interviews were also done with university students, in order to get more specific insights about their preferences and expectations.

## Analysis & Results

Regarding the secondary research on the FinTech industry, some insightful information was obtained. Three main trends were found to be the main ones guiding the evolution of the industry: financial services providers are looking more and more for ways to reduce the

customer journey's time during payments and transactions; millennials want to be able to do everything in online and mobile platforms; and partnerships and collaborations between traditional financial services providers and Fintech companies are more likely to be the future. This shows us that two of our three hypothesized success factors are in fact confirmed by the secondary research: mobile availability and speed of transactions. Another important insight that can be taken from this research is the willingness from both FinTech startups and traditional banks to work together in the future. Still as part of the secondary research undertaken, seven categories of FinTech companies targeting millennials were presented and some relevant best practices analyzed deeper. The seven categories are personal investing, wealth management, savings and finance tracking, insurance, crowdfunding, loans and payments and banking. A detailed description of each one of these categories can be found on slides 9-15 of the Business Project final report. The analysis of the best practices was important to understand which innovative financial services are being offered around the world and which features make them successful and satisfactory to young customers. Out of the relevant examples presented and studied, it is important to highlight Digit (which makes it easier for customers to save money without even thinking about it), Splitwise (which helps users to share and divide costs with their friends without using a calculator) and Ensygnia (which provides fast mobile payments online, in-store and on-the-go). Again, these relevant examples (alongside with others presented in the BP report and also some that were not presented) come to validate the importance of speed of transactions and mobile availability as a success factor for an innovative financial service. Additionally, these examples show us some features that successful companies are offering that customers like to use: such as analytics of financial data, saving plans and splitting bills.

The primary research undertaken with international university students and young workers comes to conclude the validation of the second hypothesis, as further explained. During the focus group discussion and interviews, the team found out that the main reasons for people to

choose a financial institution for the settlement of a bank account are lowest charges and free ATM withdrawals, followed closely by transparent rules (regarding fees and charges) and using the same bank as the parents (due to the speed of transaction and less charges for extra services). These findings show us how important a competitive pricing is, thus validating the third success factor specified in the hypothesis. During this research we also found out that young people are not interested in financial features regarding to loans and investments, because that is not something they normally pursue. At the same time, we found out that the splitting feature, analytics, saving plans and fast transfers would be something they would be interested in.

To conclude, both the primary and the secondary research show us that the second hypothesis was valid, thus it should be considered when developing the value proposition. In fact, our research supports that mobile availability, speed of transactions and competitive pricing are important success factors for an innovative financial service. It is important to refer, however, that our research has some limitations and we were aware of that situation. We did not have the chance to have discussions with more than 23 millennials and there is always the chance of the respondents having similar tastes, being different from other counterparts in other parts of the world. However, we still believe that our research should be considered insightful and the results taken into account.

#### **d. Third Hypothesis: Countries to be Considered**

The third hypothesis was defined in a later phase of the Business Project, when the team was already starting to idealize the value proposition. This hypothesis considers that *the product should be launched in more than one country initially*. This hypothesis was formulated only by the CEMS team and it had three main reasons: first, we live in a globalized world where it is easier and cheaper than ever to have a global business; second, the product would inevitably be something mobile and available everywhere, which only makes it more adequate to be

replicated in many countries; third, by being launched or supported by MasterCard, an already global company, it would make sense for it to be launched in more than one country.

### Methodology

In this case, there was no need for a lot of further research to decide whether or not this hypothesis should be taken into account. In fact, the decision was made during a discussion between the CEMS team and the MasterCard Advisors.

### Analysis & Results

During the referred meeting, we understood that, although our initial arguments made sense, it would make more sense to launch the product in only one country in the beginning, and then replicate it to other countries as the business would grow and evolve. This would be the best choice because there was no guarantee that MasterCard would be the one launching the product and also because, as previous research showed us, all the successful FinTech companies started as startups in only one country and then replicated to others. In fact, even if our product was to be launched by MasterCard it should first start with only one country, so that it could be tested, developed and corrected, before going to other countries. Given this, we decided to specify Poland as the first market for the product to be launched. The Polish market was chosen for being one of the countries in Europe with less cash payments and due to the growth of the country, which is extremely welcoming for new companies and startups.

### **e. Recommendations to the Company**

Apart from the insights about the FinTech industry trends and the preferences and expectations of university students and young workers, the main recommendation to MasterCard was the elaboration of the value proposition according to the MCA methodology (see *Appendix 1*). The product presented by the CEMS team to the MasterCard Advisors team was the Master App. The Master App comes to revolutionize millennials' lives when it comes to savings, payments and transactions. Our goal is to be the number one financial app in young

people's minds, helping them in their daily lives. The Master App is an application for mobile devices and it has three main features, which will be presented and explained further. For a deeper knowledge about the product and value proposition than the one presented here, one should see the Business Project report.

Whenever someone downloads the app (it will be free in any app store, independently from being a MC client or not), he/she will have to create a profile, where information such as name, phone number, bank, account number and card number has to be provided, as well as a PIN and password have to be specified to ensure safety and security. Someone's phone contacts will automatically be considered Master App contacts, as long as they also have an account. After logging in, the user can now enjoy the Master App's three features. In *Appendix 2*, one can check the main page of the app, showing the menu with the three features. Next, the three main features will be described, as well as some important information regarding marketing, distribution channels, pricing and financials.

### Personal Manager

The **Personal Manager** function of the app offers two distinct features: Analytics and Saving Plan. With the **Analytics** feature, users will be able to check in which categories they are spending a biggest share of their expenses (such as food, sports, entertainment, among others), and these categories can be defined and customized by them. Some transactions will be assigned automatically to a category (for example, an expense in McDonald's will be assigned directly to food). Other transactions, such as ATM withdrawals, will be assigned by the user (if she accepts, she will receive a push notification every time this happens so that she can assign the expense to a specific category with only one click). Additionally, the Analytics function of the app will assess past earning and spending behavior and offer a range of fiscal advice uniquely tailored to the individual, based on past transactions' history and using predictive analytics.

Still included in the Personal Manager function, users can also save money in two ways. The first one is done through round-ups and it allows for effortless savings. This means that, by using this feature, every time the user makes a purchase, the app will round up the value to the nearest euro (e.g. instead of paying €13,50 the user would pay 14€). The second way of saving money is through budgeting. This means that users can specify a goal (for example, a trip) for which they want to save money, as well as the date when they want to have that amount saved. Then, based on that information and data from analytics of cash outflows, our app will calculate how much money should be saved daily/monthly and suggest the possibility to automatically transfer a given amount each day/month from the main account to a specially created sub-account. Please see *Appendix 3* for a visualization of the Personal Manager feature of the app.

#### Insta Transfer

The second feature of the Master App allows for users to make transfers between themselves. The transfers can be done in two different ways: Insta Transfer or Regular Transfer. By using **Insta Transfer**, the money will be transferred from one user's account to the other in less than 20 minutes. However, these transfers will come with additional costs, as will be explained later. Thus, there is also the possibility for user to transfer money through **Regular Transfer**, which will follow the normal costs of the users' banks and bank accounts, taking the usual time (1-2 working days). Apart from the possibility to transfer money almost instantaneously, this feature offers another key advantage: convenience. Whenever someone wants to transfer money to a friend, he just has to select the type of transfer, insert the amount, select the recipient (by choosing one of his contacts or by using NFC) and, if desired, to write a small description or explanation. Then, the recipient will receive a push-up notification asking to confirm the transfer. In the case that someone is asking for a transfer from another person, he will have to provide the information referred above and then the other user will have to confirm the transaction and select the type of transfer. It is important to refer that the transfer

can be done either by putting the phone number (or bank account) of the other user or by using Near-Field Communication (NFC) if the two users are next to each other – they just need to put the two phones together and the transfer will be processed. In *Appendix 4* the visualization of the Insta Transfer feature can be seen, as well as the pop-up message with a transfer request.

### Master Splitting

The third feature of the app is a splitting function, which also has two additional features: one-time bills and shared accounts. The **One-time Bills** feature will be used when a group of friends is sharing one bill in a specific moment (the most common example would be a meal in a restaurant). One of the most annoying and time-consuming tasks for young people is sharing a bill in the end of a meal with a group of friends. And this is where the Master App comes to help them. By using our app, it is all simple. In a first stage, the app will have a text-scanning feature which will allow the users to take a picture of the bill (in paper) and automatically create a bill in digital format which will be available for everyone in their smartphones (if they have the app). Then, each member only needs to select the items they want to pay and then they can pay individually with the phone or with cash or card (however advantages will be given to MC clients, as explained later). There is also the possibility to share a particular item with other person and to include tip in the payment. In a later stage, we believe that restaurants will understand the potential of cooperating with us to provide better service to their clients and, thus, they will be willing to integrate their systems with the app, so that the bills can be available in a digital format, without the need for the text-scanning feature.

Also included in the Splitting Master function, there is the **Shared Account**. This feature allows friends to split the costs of a long project they are sharing (for example, a trip). In the beginning of the trip, the members just need to create a shared account, give it a name, specify who is a member of it and when is its ending date. Then, until that date, every time that any of the members incurs in an expense, he/she will receive a push notification asking if that expense



is related to the trip. If so, then he/she has to select which of the members should be included in that particular expense. In the end of the period, the app does the math automatically and informs everyone about who owes money to whom, as well as the amount. The payments can be done through the app directly (by using Insta Transfer or Regular Transfer). In *Appendix 5*, one can check the Master Splitting feature (both the One-time Bill and the Shared Account).

### Gamification

The app will be gamified using a point-based system. The goal of the gamification is to increase the app downloads, as well as the usage of all of its features. Additionally, it is also important to enhance the advantage of being a MasterCard client. From the moment when the user downloads the app and creates a profile, he will be subject to winning points through several different mechanisms. These points can later be exchanged by prizes, advantages and discounts in the usage of the app. We will distinguish between mechanisms that can give the users points (low amount; a lot of them would be necessary to exchange by something) and the ones that can give them multipliers (increasing significantly the number of points). Points could be achieved by using simple features of the app (setting up an account or a saving goal, making a transfer, splitting a bill) and multipliers would be achieved by using the app to another level (achieving a proposed saving goal in the proposed time, paying everything in a shared account within the app, inviting friends).

### Marketing and Distribution Channels

The app will be marketed at young active individuals which like to try new products and to share them with their friends. These millennials are extremely outgoing and have a lot of friends, with whom they have a lot of situations to split bills and costs. They value their time and they a fast, mobile and convenient solution, as long as it is affordable. At the beginning, the promotion will be done mostly through social media (specially Facebook and Youtube) and student associations, in order to get closer to the target group. After one or two years, the

promotion will be spread to banks, universities and restaurants. In these places, posters will be put to promote the Master App. In partner banks, the goal is for them to promote the app when potential customers are setting up a new account.

The app will be sold in the main app stores: Apple Store, Google Play and Microsoft Store. It will also be designed a website, so that users can do some operations on their laptop if desired.

### Pricing and Projected Costs & Revenues

It important to note that all the values will be presented in PLN, the Polish national currency.

	MasterCard holders	Others
<b>Personal Manager</b>		
<i>Analytics</i>	Free: Advanced analysis of cash flows, trends, spending behaviours, provide intelligent recommendations	Simple analytics of spending, assigning to the categories (Possibility to buy a monthly subscription of advanced feature)
<i>Saving Plan</i>	Free: - Round-up - Advanced Budgeting	Simple Budgeting (Possibility to buy a monthly subscription of advanced feature)
<b>Insta Transfers</b>	Limits: - Value: up to 500 PLN/day - Volume: 5 free transfers/month	Limits: - Value: up to 200 PLN/day - Volume: 3 free transfers/month
<b>Master Splitting</b>		
One-time Bill	Free of charge	5 free of charge, then possibility to buy a pack or be charged on the single transaction
Shared Account	Free	Free

**Figure 1 – Master App's Pricing Strategy**

As can be seen in *Figure 1*, a distinction is made between MasterCard holders and others, when it comes to pricing. For MC users, everything is free apart from Insta Transfers, for which they have to pay a fixed amount per transfer (for the Polish market we defined a 0,5 PLN cost per transfer) if they do more than 5 transfers per month and/or if they transfer more than 500 PLN per day. As for non-MC users, the situation is slightly different. These users will have only access to simple analytics and simple budgeting (with the possibility to buy a monthly subscription to have access to the full service). Also, the limits for Insta Transfers are smaller

(only 3 free transfers per months and a limit of 200 PLN per day) and they only have access to 5 free of charge one-time bills (after that, the cost will be 0,5 PLN per transaction).

Using this pricing strategy, assuming that the company will enter in the German market during the third year of operations and without including taxes, cost of debt and cost of capital, the projected profit in the end of five years is 2.761.012 PLN, which would be around €642.100, achieving break-even in the second year. It is important to notice that our business model is extremely scalable, so we believe that the expansion to other markets would be beneficial. In order to thoroughly check all the financial data, one can see the Business Project report (Slides 62-70). In *Appendix 6*, the main projected revenues and costs are presented, as well as the projected growth chart.

#### **f. Concerns Towards Implementation**

During the elaboration of the value proposition for the Master App, some concerns regarding implementation arose as expected. However, we believe that these issues can be solved and overcome if our recommendations are followed.

The first obstacle that might arise during the implementation phase, and that was widely discussed during the semester with the MasterCard Advisors team, is related to the Insta Transfer feature of the app. There are already companies that are doing these instant transfers (such as BlueCash and KIR in Poland) but this is for sure not an easy thing to do and it was not used to be accessible to everyone. However, there is a new regulation, which was adopted by the European Union in October 2015, the Revised Payment Services Directive (or PSD II). This regulation will change the financial markets in some ways and, in one particular way, it will be extremely positive for the Master App. According to this directive, which is expected to be introduced in Poland (and all the other EU countries) until 2018, third party payment service providers (TPP) can access their clients' bank accounts and initiate payments. This means that a TPP will be able to provide information to the recipient about the availability of funds on an

account and ensure him/her that money will be transferred to his/her account in a short amount of time. This means that the payment's market will be open to new entrants and that TPPs (as the Master App would be) would be able to process payments without asking permission to the banks, which enables the usage of the Insta Transfer feature.

Another concern that might appear in the implementation phase is the lack of willingness from banks and restaurants to cooperate with us. These two entities, especially the former, are extremely important for the success of the app. However, we believe that they will want to partner with us after they see that young customers are using our app. They will also understand how the Master App can bring them benefits. For banks, the biggest benefits are that people will start using less cash and also that they will have more access to data from users' transactions (through our app). In the case of restaurants, they will be providing a much better service to their clients (by offering a much faster and more convenient way to pay) and they will also save working time for their waiters (if the app is widely used by customers when it is time to pay). Given this, we believe that both banks and restaurants will want to work with us, as long as the app achieves initial success and the relationships with other institutions is well managed.

Being the Master App a new product in the market, its implementation is always subject to uncertainty. Above are presented the two main concerns the team faced during the BP. However, we are aware that other problems could appear during the implementation phase, as happens with every new product. The team responsible for the implementation would have to be extremely hard-working and be aware of the problems that could arise but we believe that the Master App has the potential to achieve success.

### **g. Individual Contribution**

During the whole semester, the team worked as a group and everyone participated in every phase of the Business Project. Since we were a small team (three members), the communication was easy and everyone knew what was going on with the project, even when tasks were split.

Since the beginning of the project, I was in charge of being the contact person, both with the Academic Advisor and with MasterCard. Having this responsibility was something really interesting and it made me feel more comfortable when contacting personally with the company members during the meetings that were held. In the first phase of the project (research on the FinTech industry), the team worked together in the beginning in order to define how the research should be done. After structuring it, I was responsible for the research on three of the seven categories of FinTech companies targeting millennials (specifically savings & finance tracking, insurance and crowdfunding). The research was done smoothly and the relevant best practices were presented.

During the primary research phase of the project, I was present in two of the three focus groups' discussions (I was not present in the third one because it was organized only with Polish people and, thus, the Polish language was used for them to feel more comfortable). In both focus groups where I was present I was the moderator, leading the discussions in order to achieve as more insights as possible from the interviewees. Regarding the five interviews realized, I have made two of them. As for the analysis of the results of the primary research, it was done as a team and presented to the company.

Regarding the development of the value proposition for the Master App, as happened during the other phases of the BP, the whole team was involved and discussions were held on a regular basis, in order for everyone to be updated, especially during the creative phase. However, each member had his specific tasks when it was time to bring everything down to paper. I was responsible for the general description of the app, the description of the Master Splitting functionality, the gamification and the marketing and promotion.

During the whole semester, I was responsible for the layout and design of the presentations we had for the MasterCard Advisors (five meetings), as well as of the final report and presentation.

### **III. Academic Discussion**

The present Business Project can be related to my field of studies (MSc in Management) in many different ways, given that it meant planning the creation of a new product. The first step to take in these situations is study and evaluate the internal and external context of the company, the industry and the economy. This is what the group did when studying the FinTech industry's trends and when interviewing university students and young workers (our future potential customers). And this is also what was taught during the MSc in Management in courses such as Strategy I and II and Pricing Strategies, where I have learnt that knowing the context is extremely important to take the right strategic decisions. In order to better understand our future customers, research had to be conducted, both primary and secondary, as referred before. In order to do this, the team put in practice techniques learnt in Brand Management and Consumer Behavior. After studying the customers, it was extremely important to define and understand what their real pains are and how to solve them by offering a product, as learnt in the course Entrepreneurship. Finally, preparing the implementation of a new product also requires a rigorous marketing and promotion plan, which I believe I master due to some courses such as Advanced Marketing and Integrated Marketing Communications (part of my Major in Marketing).

Due to the fact that the Business Project's main outcome was the presentation of the value proposition for a new product and given that there is always a lot of uncertainty about the success of new products and services, some relevant theories about new product development (NPD) were studied and will be further discussed.

New product development can be defined as the transformation of an abstract idea into a tangible product or service, by discovering and exploiting a market opportunity (Krishnan and Ulrich, 2001; Kyriazis and Massey, 2005) and contributing to an increase of the firm's competitiveness in its industry (Balachandra and Friar, 1997). In a more alternative vision,

Madhavan and Grover (1996) define it as “a process of knowledge creation through the syndication of diverse streams of knowledge”. What is consensual between almost all academics and practitioners is that NPD is becoming more and more crucial for companies to grow and be more competitive (Brown and Eisenhardt, 1995; van der Panne, van Beers and Kleinknecht, 2003). The highly competitive global economy and the intense technological change in today’s business world are putting a lot of pressure for companies to innovate and create new products for their clients (Olson, Walker and Ruekert, 1995; Madhavan and Grover, 1996). In a more holistic view, Bhuiyan (2011) believes that NPD also benefits the economy as a whole, by stimulating employment, economic growth and technological progress. Thus, it is with no surprise that during the last two decades a lot of researchers have been focusing their work on understanding what makes the development of a new product a success or a failure.

As referred before, a lot of authors have been trying to define what makes a NPD successful. However, it is not possible to find a definitive list of factors that all researchers agree to be the main drivers of this success. Throughout the last two decades, some authors have analyzed the available studies in an attempt to get closer to this goal (Balachandra and Friar, 1997; Henard and Szymanski, 2001; Krishnan and Ulrich, 2001; van der Panne, van Beers and Kleinknecht, 2003; Bhuiyan, 2011; Brown and Eisenhardt, 2011; Evanschitzky, Eisend, Calantone and Jiang, 2012) but, although they have managed to somehow clear up the picture, it is still hard to definitely define NPD success factors. Thus, in this academic review, some of the most common and accepted theories about this issue are presented, having in mind that there is still a lot to be discovered about it. What seems to be consensual amongst all authors is that NPD success drivers can be divided into two broad categories – internal and external. Internal success drivers are the ones that are related to the company and can be controlled by it, such as proficiency of market activities (Montoya-Weiss and Calantone, 1994). External factors are the ones which are exogenous and, thus, cannot be controlled, such as market potential (Henard

and Szymanski, 2001). One theory that, in my opinion, provides an insightful understanding of NPD success factors was presented by van der Panne, van Beers and Kleinknecht in 2003 and divides them in four categories: firm-related, project-related, product-related and market-related. In *Appendix 7*, a table can be found explaining the four categories aforementioned, as presented by the referred authors.

One important factor that has been widely studied and defined as essential for NPD success is an effective cross-functional integration and communication between the company's Marketing and R&D departments. In fact, creating a new product involves interdependent specialists providing or exchanging resources such as information and money (Lawrence and Lorsch, 1967; Olson, Walker and Ruekert, 1995) and this has to be done in the most effective and efficient way. But why is the relationship between these two departments so much more important than between any other department? The answer to this question is given by Fain, Kline and Duhovnik (2011), who explain that, while Marketing studies the customer and supplies his voice, R&D "uses the company's assets and capabilities to create a product with a differential competitive advantage". The first theoretical framework for the study of Marketing – R&D relationship (and still the most used and cited today) was presented by Gupta, Raj and Wilemon in 1986. In *Appendix 8*, this framework can be consulted. Some empirical studies have been done in regards to the importance of cross-functional relationship between Marketing and R&D and what factors can affect this relationship. In 2005, Kyriazis and Massey present results that show that trust (both cognition- and affect-based) between members of both departments has a positive impact on the relationship effectiveness between them. On the other hand, Fain, Kline and Duhovnik (2011) highlight the national culture of the company's country and the organizational environment as two factors that influence Marketing – R&D integration. Regarding cross-functional integration as a NPD success driver, an important remark should be done, which is related to the distinction between Marketing and Sales. In fact, Marketing and



Sales are not the same department and the majority of the companies make it visible by specifying different tasks and responsibilities in their organizational charts (Workman, Homburg and Gruner, 1998). This means that treating Marketing and Sales (or omitting the latter) when studying cross-functional relationship with R&D can give misleading information. This concern was presented and proved valid in 2010, when Ernst, Hoyer and Rübsaamen empirically found that “the cooperation between sales and R&D and between sales and marketing has a significant, positive effect on overall NPD project performance beyond marketing – R&D cooperation”.

One important distinction that can be made when evaluating NPD success is related to the degree of innovativeness of the new product. Following the notation used by Veryzer (1998), innovations can be continuous (or incremental) or discontinuous (radical). The former are new products that are less innovative, such as line extensions or product improvements. The latter are radically new products that involve dramatic leaps in terms of customer familiarity and use, sometimes even creating new industries. What some researchers believe is that this distinction is important to understand NPD success and failure. A study from 1995 by Olson, Walker and Ruekert shows that, for a discontinuous innovation, a more participative organizational structure will achieve better results than for a continuous new product, which would benefit more from a bureaucratic structure. This happens because, in the first case, “the functional tasks involved in developing the concept and bringing it to market are more difficult and challenging than when the project involves a more straightforward modification or extension of an existing line”, thus benefiting more from cross-functional integration and exchange of ideas. Similar conclusions can be drawn from de Brentani’s study in 2001, where it is highlighted that a company should have a culture that encourages entrepreneurship and creativity in order for a truly innovative new product to be successful. Finally, Gourville (2005) presents what he describes as “curse of innovation”, a phenomenon that can happen to discontinuous new

products and which results from the fact that consumers tend to undervalue the innovation and the company to overvalue it. If both are big enough, the product will not achieve the success desired.

Although, as referred, there a lot of available studies about new product development, providing diverse theories about what makes a new product successful, there is still some room for future research. What was found to be missing are studies and theories that would provide an understanding about what makes a new product successful in a specific industry. There are already some empirical studies for some specific industries in specific countries, however there is no unified view for different industries. In particular, an analysis of NPD success drivers for digital innovations would have been extremely useful for the present Business Project, given that the product developed is an app. In fact, this is a topic with a lot of possible further research, taking into account that the world is turning into digital and products such as apps seem to be the future of innovation.

#### **IV. Personal Reflection**

The Business Project was an extremely important tool to put into practice some knowledge acquired during my Master's degree, as well as to develop essential soft skills. As referred during the considerations about my "individual contribution", the team always worked together as a group. In fact, the relationship between the team members was unexpectedly smooth and non-problematic. The fact that we were a small team (only three members) facilitated the communication and interaction between the members and we knew how to take advantage of it to build a comfortable work environment and to obtain the desired results.

During the project, I felt that I developed a lot, both personally and professionally, and this development was threefold. First, I became a more responsible person. Being the person responsible for contacting with the Academic Advisor and with the company, I could not forget to do it in time. If I forgot to send an email, that could mean that we would have to re-schedule

a meeting and thus limit our work process. The second trait I think was developed was the creativity. This project was all about defining customers' preferences and pains, identifying what was missing in the market and inventing solutions to it. And we, as a group, managed to find creative solutions and to develop an interesting value proposition. Finally, I felt that I developed the ability to react after a failure. In a project like this one, there are always situations where the confidence is down and where the team does not feel motivated to go on. In our second meeting with MasterCard (the first after the kick-off meeting), we presented our first insights about the FinTech industry. However, it was not what the company advisors were expecting. We left the meeting feeling that we had not done enough. However, instead of giving up, we redid our research on the industry and the next week we presented again our new findings, which were complimented. In these situations, I believe I was important to re-motivate my colleagues and to show them that we could do much better than we had done before.

The relationship with MasterCard was extremely positive. The company representatives were always available to help us and to give us insightful advice. They never forced any of their views on us and we were encouraged to follow our instincts when developing the value proposition. The fact that we had regular meetings with them was really important to feel more comfortable in a corporate environment and the fact that we had to present our findings on a 2 to 3-week basis contributed to improve our presentation skills. The financial sector is a sector where I am usually not comfortable, which is another reason why this project was important for my development, giving me new insights and knowledge about this industry.

Looking back at the beginning of the project, I would have given more effort in the initial phases (primary and secondary research). Due to the fact that this was the beginning of the project, the team was not as motivated as in the end, so the work did not flow as it should have, contributing for a delay that made us feel a little bit pressured in the last weeks. However, I can

say that the project went as expected and the team and the company were extremely satisfied with the results achieved.

## V. References

Balachandra, R. and Friar, J.H. 1997. "Factors for Success in R&D Projects and New Product Innovation: A Contextual Framework." *IEEE Transactions on Engineering Management*. Vol 44. No 3.

Bhuiyan, N. 2011. "A Framework for Successful New Product Development." *Journal of Industrial Engineering and Management*.

Brown, S.L. and Eisenhardt, K.M. 1995. "Product Development: Past Research, Present Findings, and Future Directions." *The Academy of Management Review*. Vol 20. No 2. pp 343-378.

de Brentani, U. 2001. "Innovative Versus Incremental New Business Services: Different Keys for Achieving Success." *Journal of Product Innovation Management*. Vol 18. pp 169-187.

Ernst, H., Hoyer, W.D. and Rübsaamen, C. 2010. "Sales, Marketing, and Research-and-Development Cooperation Across New Product Development Stages: Implications for Success." *American Marketing Association*. Vol 74. pp 80-92.

Evanschitzky, H., Eisend, M., Calantone, R.J. and Jiang, Y. 2012. "Success Factors of Product Innovation: An Updated Meta-Analysis." *Journal of Product Innovation Management*.

EY. 2016. "The Revised Payment Services Directive (PSD II) – What You Need to Know." Accessed 20 June 2016.

[http://www.ey.com/Publication/vwLUAssets/EY-the-revised-payment-services-directive-psd-11-what-you-need-to-know/\\$FILE/EY-the-revised-payment-services-directive-psd-11.pdf](http://www.ey.com/Publication/vwLUAssets/EY-the-revised-payment-services-directive-psd-11-what-you-need-to-know/$FILE/EY-the-revised-payment-services-directive-psd-11.pdf).

Fain, N., Kline, M. and Duhovnik, J. 2011. "Integrating R&D and Marketing in New Product Development." *Strojniški vestnik - Journal of Mechanical Engineering*. No 57. pp 599-609.

Gourville, J.T. 2005. "The Curse of Innovation: A Theory of Why Innovative New Products Fail in the Marketplace." *Harvard Business School Marketing Research Papers*. No 05-06.

Gupta, A.K., Raj, S.P. and Wilemon, D. (1986). "A Model for Studying R&D – Marketing Interface in the Product Innovation Process." *Journal of Marketing*. Vol 50. pp 7-17.

Henard, D.H. and Szymanski, D.M. 2001. "Why Some New Products Are More Successful Than Others." *Journal of Marketing Research*. Vol 38. pp 362-375.

Kyriazis, E. and Massey, G.R. 2005. "The Effects of Organisational Structure, Interpersonal Trust and Communication During New Product Development Projects." *ANZMAC 2005 Conference: Entrepreneurship, Innovation and New Product Development*.

Krishnan, V. and Ulrich, K.T. 2001. "Product Development Decisions: A Review of the Literature." *Management Science*. Vol 47. No 1. pp 1-21.

Lawrence, P.R. and Lorsch, J.W. 1967. *Organization and Environment*. Homewood, ILL: Irwin-Dorsey.

Madhavan, R. and Grover, R. 1996. "From Embedded Knowledge to Embodied Knowledge: New Product Development as Knowledge Management." *ISBM Report 3-1996*.

MasterCard Advisors. 2016. "About Advisors." Accessed 13 June 2016.  
<http://www.mastercardadvisors.com/about.html>

MasterCard. 2016a. "2015 Annual Report." MasterCard Incorporated.

MasterCard. 2016b. "About MasterCard." Accessed 13 June 2016.  
<https://www.mastercard.us/en-us/about-mastercard.html>.

MasterCard. 2016c. "Guided by our Vision, Mission and Values." Accessed 13 June 2016.  
<https://www.mastercard.us/en-us/about-mastercard/who-we-are/vision-mission-values.html>.

MasterCard. 2016d. "Our products and solutions make payments easier." Accessed 13 June 2016.

<https://www.mastercard.us/en-us/about-mastercard/what-we-do/products-solutions.html>.

MasterCard. 2016e. "Walking the Talk of Innovation." Accessed 13 June 2016.

<https://www.mastercard.us/en-us/about-mastercard/who-we-are/innovation.html>.

MasterCard. 2016f. "We've been making history for nearly 50 years." Accessed 13 June 2016. <https://www.mastercard.us/en-us/about-mastercard/who-we-are/history.html>.

Ministry of Treasury Republic of Poland. 2013. "Payment card Market in Poland." Accessed 15 June 2016.

<https://www.msp.gov.pl/en/polish-economy/economic-news/4679,Payment-card-market-in-Poland.html>.

Montoya-Weiss, M.M. and Calantone, R.J. 1994. "Determinants of New Product Performance: A Review and Meta-Analysis." *Journal of Product Innovation Management*. Vol 11. No 5. pp 397-417

Olson, E.M., Walker Jr., O.C. and Ruekert, R.W. 1995. "Organizing for Effective New Product Development: The Moderating Role of Product Innovativeness." *Journal of Marketing*. Vol 59. pp 48-62.

The Nilson Report. 2016. "Purchase Transactions on Global Cards in 2015." Accessed 15 June 2016. <https://www.nilsonreport.com/upload/PurchTransGlobalCards2015.gif>.

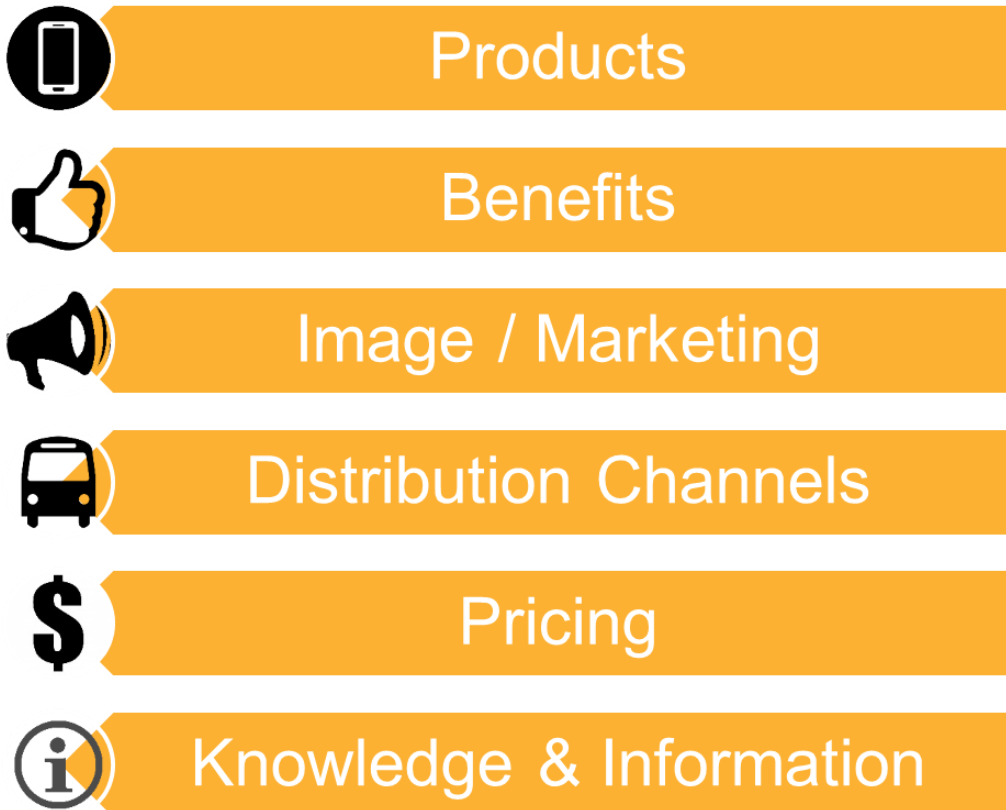
van der Panne, D., van Beers C. and Kleinknecht, A. 2003. "Success and Failure of Innovation: A Literature Review." *Dept. Economics of Innovation, Delft University of Technology, The Netherlands*.

Veryzer Jr., R.W. 1998. "Discontinuous Innovation and the New Product Development Process." *Journal of Product Innovation Management*. Vol 15. pp 304-321.

Workman Jr., J.P., Homburg, C. and Gruner, K. 1998. "Marketing Organization: An Integrative Framework of Dimensions and Determinants." *Journal of Marketing*. No 62. pp 21–41.

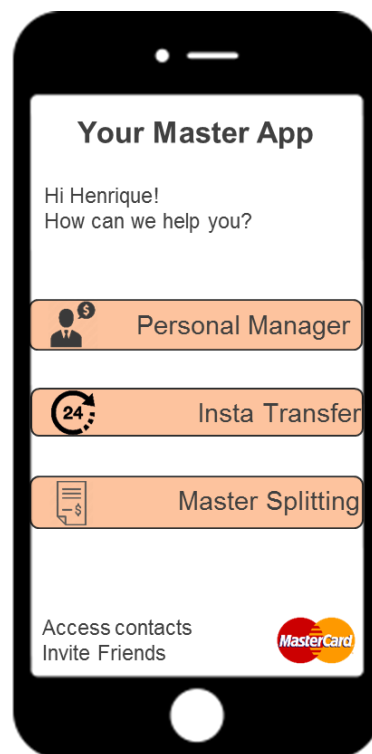
## VI. Appendixes

### Appendix 1 – The MasterCard methodology for a value proposition

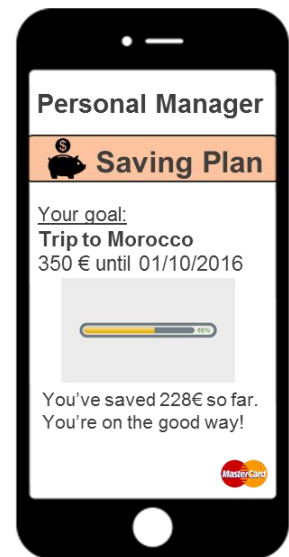
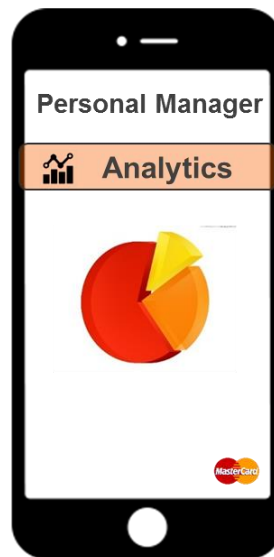
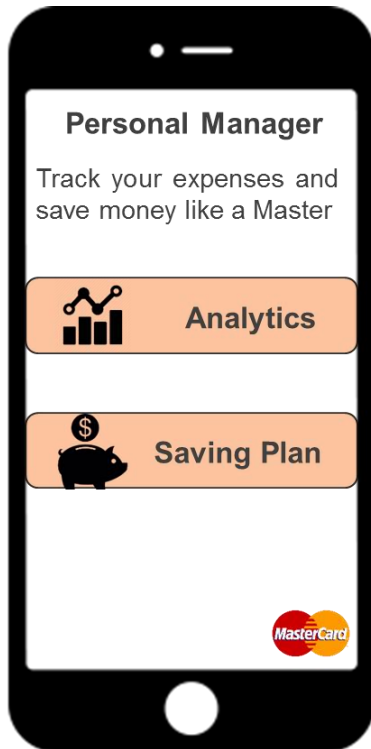




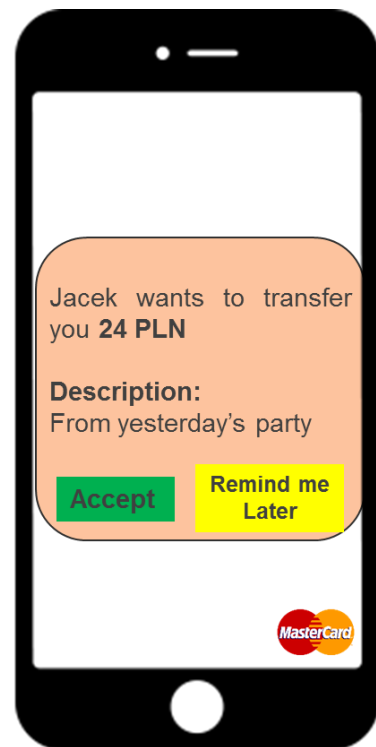
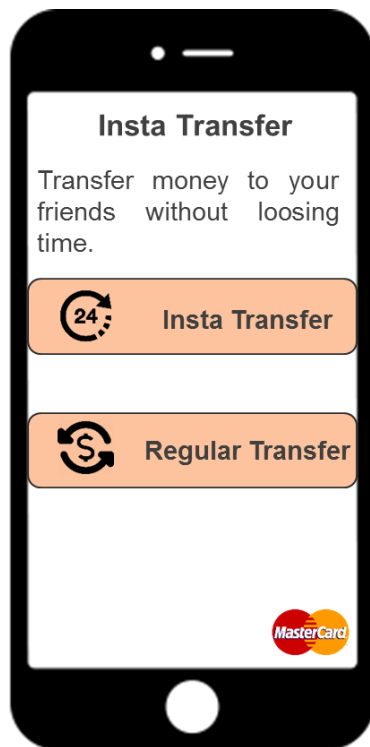
## Appendix 2 – The opening page of the Master App



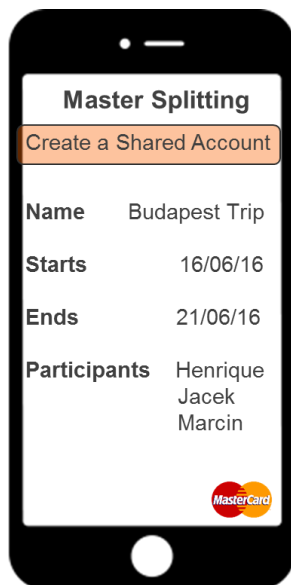
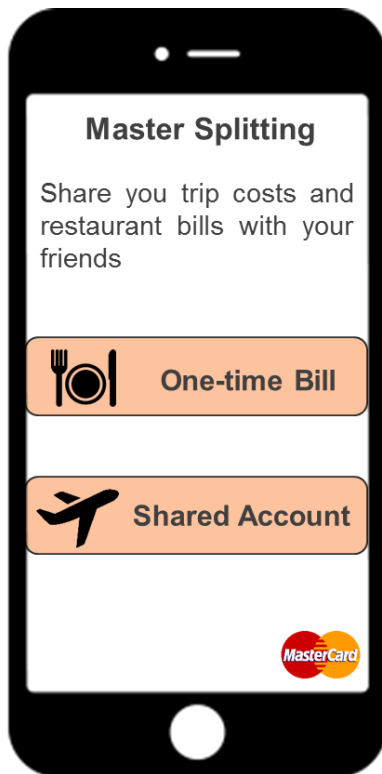
### Appendix 3 – The Personal Manager feature



## Appendix 4 – The Insta Transfer feature

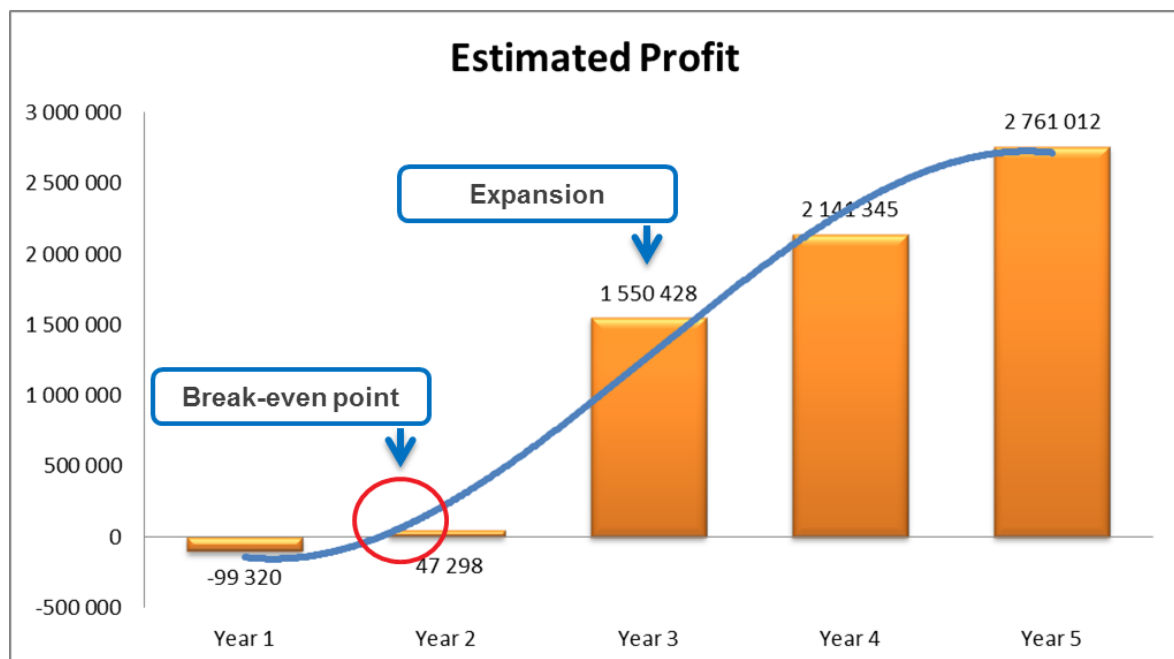


## Appendix 5 – The Master Splitting feature

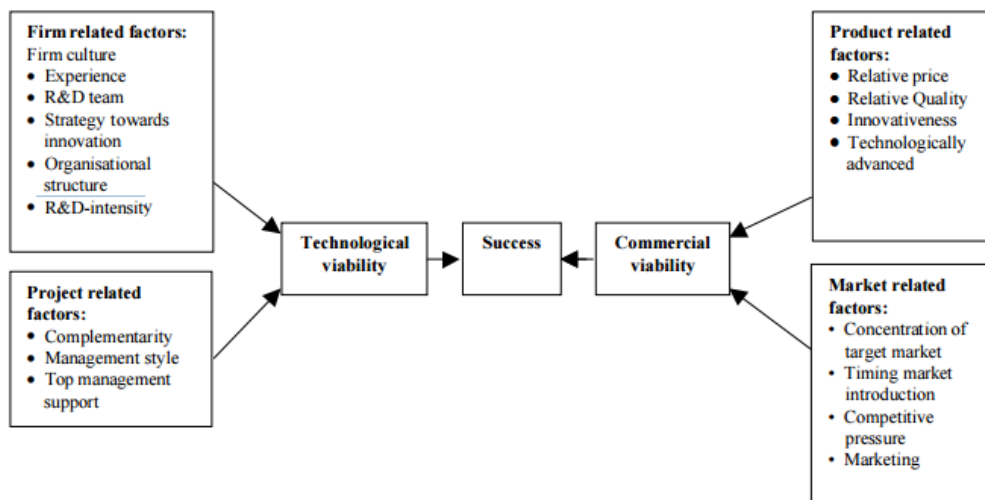


## Appendix 6 – Projected costs, revenues and growth

Items	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Revenue Streams</b>	<b>559 600</b>	<b>738 672</b>	<b>3 405 281</b>	<b>4 084 045</b>	<b>4 795 445</b>
•Mastercard users	201 600	266 112	974 173	1 163 130	1 362 986
•Other users	358 000	472 560	2 431 107	2 920 914	3 432 459
<b>Cost Structure</b>	<b>658 920</b>	<b>691 374</b>	<b>1 854 853</b>	<b>1 942 699</b>	<b>2 034 433</b>
•Launch cost (one-time cost)	40 000	40 000	45 000	45 000	45 000
•Fixed cost	231 000	243 000	846 000	846 000	846 000
•Variable cost	387 920	408 374	963 853	1 051 699	1 143 433
<b>Profit</b>	<b>-99 320</b>	<b>47 298</b>	<b>1 550 428</b>	<b>2 141 345</b>	<b>2 761 012</b>



## Appendix 7 – Critical Factors for Innovative Success (van der Panne et al, 2003)



## Appendix 8 – Theoretical framework for the study of Marketing – R&D Relationships (Gupta et al, 1986)

